

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An electroluminescence element comprising:

an anode;

an electroluminescent film containing an organic compound capable of generating electroluminescence, over the anode;

an electron transport layer over the electroluminescent film;

a floating electrode over the ~~electroluminescent film~~ electron transport layer;

an electron transport supporting layer having a thickness of more than 10 nm and less than 1 μm , over the floating electrode; and

a cathode over the electron transport supporting layer,

~~wherein at least one of the electroluminescent film and the electron transport supporting layer contains a hole blocking material~~ wherein the floating electrode comprises an insulating film formed in contact with the electron transporting layer and a conductive film formed in contact with the electron transport supporting layer.
2. (Original) An electroluminescence element according to claim 1, wherein the cathode comprises a conductive film formed by sputtering.
3. (Original) An electroluminescence element according to claim 1, wherein the cathode comprises a translucent conductive film formed by sputtering.

4-5. (Canceled)

6. (Original) An electroluminescence element according to claim 1, wherein the cathode comprises a conductive material having a work function of 3.5 eV or more.

7. (Original) An electroluminescence element according to claim 1, wherein the electron transport supporting layer comprises an electron-transportable material having an electron mobility which is larger than a hole mobility.

8. (Original) An electroluminescence element according to claim 1, wherein the floating electrode comprises a conductive material having a work function of 3.5 eV or less.

9. (Canceled)

10. (Original) An electroluminescence element according to claim 1, wherein the electron transport supporting layer has a film thickness in the range of 10 nm to 1 μm .

11. (Original) An electroluminescence element according to claim 1, wherein the electroluminescence element is incorporated into a light emitting device.

12. (Original) An electroluminescence element according to claim 1, wherein the electroluminescence element is incorporated into an electric appliance selected from the group consisting of a personal computer, a video camera, a mobile computer, a player, a digital camera, a cell phone, a portable book, and a display.

13. (Currently amended) An electroluminescence element comprising:

~~an~~ a cathode;

an electron transport supporting layer over the cathode;

~~an electroluminescent film containing an organic compound capable of generating electroluminescence, over the cathode;~~

a floating electrode over the ~~electroluminescent film~~ electron transport supporting layer;

an electron transport ~~supporting~~ layer over the floating electrode; and

an electroluminescent film containing an organic compound capable of generating electroluminescence, over the electron transport layer; and

a ~~an~~ anode over the ~~electron transport supporting~~ electroluminescent layer,

wherein at least one of the electroluminescent film and the electron transport supporting layer contains a hole blocking material, and

wherein the floating electrode comprises an insulating film formed in contact with the electron transporting layer and a conductive film formed in contact with the electron transport supporting layer.

14. (Original) An electroluminescence element according to claim 13, wherein the cathode comprises a conductive film formed by sputtering.

15. (Original) An electroluminescence element according to claim 13, wherein the cathode comprises a translucent conductive film formed by sputtering.

16. (Original) An electroluminescence element according to claim 13, wherein the hole blocking material has an ionization potential of 5.8 eV or more.

17. (Original) An electroluminescence element according to claim 13, wherein the hole blocking material is an organic compound containing a phenanthroline skeleton or a penta-coordinate type metal complex having an element belonging to Group 13 of the periodic table as a central metal.

18. (Original) An electroluminescence element according to claim 13, wherein the cathode comprises a conductive material having a work function of 3.5 eV or more.

19. (Original) An electroluminescence element according to claim 13, wherein the electron transport supporting layer comprises an electron-transportable material having an electron mobility which is larger than a hole mobility.

20. (Original) An electroluminescence element according to claim 13, wherein the floating electrode comprises a conductive material having a work function of 3.5 eV or less.

21. (Currently amended) An electroluminescence element according to claim 13, wherein the floating electrode comprises an insulating film formed in contact ~~contacted~~ with the ~~electroluminescence film~~ electron transporting layer and a conductive film formed in contact ~~contacted~~ with the electron transport supporting layer.

22. (Original) An electroluminescence element according to claim 13, wherein the electron transport supporting layer has a film thickness in the range of 10 nm to 1 μm .

23. (Original) An electroluminescence element according to claim 13, wherein the electroluminescence element is incorporated into a light emitting device.

24. (Original) An electroluminescence element according to claim 13, wherein the electroluminescence element is incorporated into an electric appliance selected from the group consisting of a personal computer, a video camera, a mobile computer, a player, a digital camera, a cell phone, a portable book, and a display.

25. (Currently amended) An electroluminescence element comprising:

~~an cathode;~~

an anode;

an electroluminescent film containing an organic compound capable of generating electroluminescence, over the ~~anode~~ anode;

an electron transport layer over the electroluminescent film;

a floating electrode over ~~the electroluminescent film~~ the electron transport layer;

an electron transport supporting layer over the floating electrode; and

a ~~anode~~ cathode over the electron transport supporting layer,

wherein ~~at least one of the electroluminescent film and the electron transport supporting layer contains a hole blocking material~~ the floating electrode comprises an insulating film formed in contact with the electron transporting layer and a conductive film formed in contact with the electron transport supporting layer.

26. (Original) An electroluminescence element according to claim 25, wherein the cathode comprises a conductive film formed by sputtering.

27. (Original) An electroluminescence element according to claim 25, wherein the cathode comprises a translucent conductive film formed by sputtering.

28. (Currently amended) An electroluminescence element according to claim 25, wherein at least one of the electroluminescent film and the electron transport supporting layer contains a hole blocking material, and the hole blocking material has an ionization potential of 5.8 eV or more.

29. (Currently amended) An electroluminescence element according to claim 25, wherein at least one of the electroluminescent film and the electron transport supporting layer contains a hole blocking material, and the hole blocking material is an organic compound containing a phenanthroline skeleton or a penta-coordinate type metal complex having an element belonging to Group 13 of the periodic table as a central metal.

30. (Original) An electroluminescence element according to claim 25, wherein the cathode comprises a conductive material having a work function of 3.5 eV or more.

31. (Original) An electroluminescence element according to claim 25, wherein the electron transport supporting layer comprises an electron-transportable material having an electron mobility which is larger than a hole mobility.

32. (Original) An electroluminescence element according to claim 25, wherein the floating electrode comprises a conductive material having a work function of 3.5 eV or less.

33. (Canceled)

34. (Original) An electroluminescence element according to claim 25, wherein the electron transport supporting layer has a film thickness in the range of 10 nm to 1 μm .

35. (Original) An electroluminescence element according to claim 25, wherein the electroluminescence element is incorporated into a light emitting device.

36. (Original) An electroluminescence element according to claim 25, wherein the electroluminescence element is incorporated into an electric appliance selected from the group consisting of a personal computer, a video camera, a mobile computer, a player, a digital camera, a cell phone, a portable book, and a display.

37. (Currently amended) An electroluminescence element comprising:

- an anode;
- an electroluminescent film containing an organic compound that generates electroluminescence, over the anode;
- an electron transporting layer over the electroluminescent film;
- a floating electrode over the electron transporting layer;
- an electron transport supporting layer over the floating electrode; and
- a cathode over the electron transport supporting layer,

wherein at least one of the electroluminescent film and the electron transport supporting layer contains a hole blocking material, and

wherein the floating electrode comprises an insulating film formed in contact with the electron transporting layer and a conductive film formed in contact with the electron transport supporting layer.

38. (Original) An electroluminescence element according to claim 37, wherein the cathode comprises a conductive film formed by sputtering.

39. (Original) An electroluminescence element according to claim 37, wherein the cathode comprises a translucent conductive film formed by sputtering.

40. (Original) An electroluminescence element according to claim 37, wherein the hole blocking material has an ionization potential of 5.8 eV or more.

41. (Original) An electroluminescence element according to claim 37, wherein the hole blocking material is an organic compound containing a phenanthroline skeleton or a penta-coordinate type metal complex having an element belonging to Group 13 of the periodic table as a central metal.

42. (Original) An electroluminescence element according to claim 37, wherein the cathode comprises a conductive material having a work function of 3.5 eV or more.

43. (Original) An electroluminescence element according to claim 37, wherein the electron transport supporting layer comprises an electron-transportable material having an electron mobility which is larger than a hole mobility.

44. (Original) An electroluminescence element according to claim 37, wherein the floating electrode comprises a conductive material having a work function of 3.5 eV or less.

45. (Currently amended) An electroluminescence element according to claim 37, wherein the floating electrode comprises an insulating film formed in contact ~~contacted~~ with the ~~electroluminescence film~~ electron transporting layer and a conductive film formed in contact ~~contacted~~ with the electron transport supporting layer.

46. (Original) An electroluminescence element according to claim 37, wherein the electron transport supporting layer has a film thickness in the range of 10 nm to 1 μm .

47. (Original) An electroluminescence element according to claim 37, wherein the electroluminescence element is incorporated into a light emitting device.

48. (Original) An electroluminescence element according to claim 37, wherein the electroluminescence element is incorporated into an electric appliance selected from the group consisting of a personal computer, a video camera, a mobile computer, a player, a digital camera, a cell phone, a portable book, and a display.

49. (Currently amended) An electroluminescence element comprising:
a cathode;

an electron transport supporting layer having a thickness of more than 10 nm and less than 1 μm , over the cathode;

a floating electrode over the electron transport supporting layer;

an electron transporting layer over the floating electrode;

an electroluminescent film containing an organic compound that generates electroluminescence, over the electron transporting layer; and

an anode over the electroluminescent film,

wherein the floating electrode comprises an insulating film formed in contact with the electron transporting layer and a conductive film formed in contact with the electron transport supporting layer.

50. (Original) An electroluminescence element according to claim 49, wherein the cathode comprises a conductive film formed by sputtering.

51. (Original) An electroluminescence element according to claim 49, wherein the cathode comprises a translucent conductive film formed by sputtering.

52-53. (Canceled)

54. (Original) An electroluminescence element according to claim 49, wherein the cathode comprises a conductive material having a work function of 3.5 eV or more.

55. (Original) An electroluminescence element according to claim 49, wherein the electron transport supporting layer comprises an electron-transportable material having an electron mobility which is larger than a hole mobility.

56. (Original) An electroluminescence element according to claim 49, wherein the floating electrode comprises a conductive material having a work function of 3.5 eV or less.

57. (Canceled)

58. (Original) An electroluminescence element according to claim 49, wherein the electron transport supporting layer has a film thickness in the range of 10 nm to 1 μm .

59. (Original) An electroluminescence element according to claim 49, wherein the electroluminescence element is incorporated into a light emitting device.

60. (Original) An electroluminescence element according to claim 49, wherein the electroluminescence element is incorporated into an electric appliance selected from the group consisting of a personal computer, a video camera, a mobile computer, a player, a digital camera, a cell phone, a portable book, and a display.

61. (Currently amended) An electroluminescence element comprising:
a cathode;

an electron transport supporting layer over the cathode;
a floating electrode over the electron transport supporting layer;
an electron transporting layer over the floating electrode;
an electroluminescent film containing an organic compound that generates electroluminescence, over the electron transporting layer; and
an anode over the electroluminescent film,
wherein ~~at least one of the electroluminescent film and the electron transport supporting layer contains a hole blocking material~~ the floating electrode comprises an insulating film formed in contact with the electron transporting layer and a conductive film formed in contact with the electron transport supporting layer.

62. (Original) An electroluminescence element according to claim 61, wherein the cathode comprises a conductive film formed by sputtering.

63. (Original) An electroluminescence element according to claim 61, wherein the cathode comprises a translucent conductive film formed by sputtering.

64. (Currently amended) An electroluminescence element according to claim 61, wherein at least one of the electroluminescent film and the electron transport supporting layer contains a hole blocking material and the hole blocking material has an ionization potential of 5.8 eV or more.

65. (Currently amended) An electroluminescence element according to claim 61, wherein at least one of the electroluminescent film and the electron transport supporting layer contains a hole blocking material and the hole blocking material is an organic compound containing a phenanthroline skeleton or a penta-coordinate type metal complex having an element belonging to Group 13 of the periodic table as a central metal.

66. (Original) An electroluminescence element according to claim 61, wherein the cathode comprises a conductive material having a work function of 3.5 eV or more.

67. (Original) An electroluminescence element according to claim 61, wherein the electron transport supporting layer comprises an electron-transportable material having an electron mobility which is larger than a hole mobility.

68. (Original) An electroluminescence element according to claim 61, wherein the floating electrode comprises a conductive material having a work function of 3.5 eV or less.

69. (Canceled)

70. (Original) An electroluminescence element according to claim 61, wherein the electron transport supporting layer has a film thickness in the range of 10 nm to 1 μm .

71. (Original) An electroluminescence element according to claim 61, wherein the electroluminescence element is incorporated into a light emitting device.

72. (Original) An electroluminescence element according to claim 61, wherein the electroluminescence element is incorporated into an electric appliance selected from the group consisting of a personal computer, a video camera, a mobile computer, a player, a digital camera, a cell phone, a portable book, and a display.